PRODUCTION ADJUSTMENTS IN OHIO AGRICULTURE IN 1949
(Under assumed conditions)

Estimates Prepared by
The Ohio Agricultural Production Adjustment Committee

Department of Rural Economics and Rural Sociology
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and
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I. INTRODUCTION

Each year since 1942 the Ohio Agricultural Experiment Station and the College of Agriculture of Ohio State University have cooperated with the Bureau of Agricultural Economics, United States Department of Agriculture, in preparing a statement of suggestions for crop and livestock production in Ohio for the year ahead. The need for production adjustment analyses continues in peace as in war.

J. I. Falconer, Head of the Department of Rural Economics and Rural Sociology, Ohio State University and Ohio Agricultural Experiment Station served as Chairman of the Ohio Production Adjustment Committee. The membership of this committee consists of representatives of the following organizations:

Ohio Agricultural Experiment Station
College of Agriculture, O.S.U.
Bureau of Agricultural Economics, U.S.D.A.
Soil Conservation Service
U.S.D.A. Agricultural Council for Ohio

The data was assembled and the report prepared by J. H. Sitterley of the Department of Rural Economics, Ohio State University.

The Committee has attempted to suggest what Ohio farmers should produce in 1949, considering prospective demand and requirements for 1949 production and long-time stability in the farming of the state. In the development of the various crop and livestock estimates, the Committee has drawn from historical data, past studies, and the best judgment available.

The "long-time objective" crop and livestock estimates presented in the report, Postwar Crop and Livestock Pattern for Ohio, December, 1944, were used as a guide to the desired level of production in a stabilized agricultural situation for Ohio. The present report is developed primarily on a state basis since the detailed type of farming area analysis of 1944 is still considered to be reliable and continues to meet the need for such data.

II. BASIC ASSUMPTIONS

As in the past studies, the estimates presented in this report were arrived at as nearly as possible on a basis of a set of assumed conditions. The following basic assumptions were made:

1. The need and the demand for the major farm products of Ohio will remain at a high level.

2. The prices for farm products though somewhat lower than in 1948 will continue at attractive levels due to a strong effective domestic demand and to a sizeable agricultural export.

3. Cost of farm supplies will continue at something near the 1948 level.

4. The supply of farm labor will be about the same in 1949 as in 1948.

5. Farm machinery will be available at about the same rate as in 1948. But the supply of fertilizers will probably be somewhat greater.

6. The 1948 crop prospects will create a surplus feed situation for the next 12 months.

7. The remainder of 1948 and the 1949 planting, growing and harvesting seasons will be at least normal.

8. It is highly essential that constant and increasing effort be given to checking soil deterioration where occuring and to the establishment of a soil restoration program throughout the farming areas of the state.

The estimates and suggestions of this report, based upon these assumptions, are not intended to be goals for 1949. The estimates represent the best judgment of the group as to the crop acreages and the livestock numbers that Ohio farmers should produce in 1949 under the assumed conditions. In setting goals, further consideration should be given to national and international needs. Thus, the goals for Ohio may be established either above or below the level of production suggested in this report.

III. CROP PRODUCTION IN 1949

With the prospects for a large carryover of feed grains at the end of the 1948-49 feed year and the easing domestic and world food situation, the committee was of the opinion that a major step should be taken toward the establishment of a crop program on our farms that would check the deterioration of the soil in the interest of national security and individual well being.

Utilization of Cropland

The total acreage of cropland in Ohio increased slightly during the war period. In the interests of soil conservation and efficient production this trend should be reversed and some low producing land now in crops should be retired to other uses. The committee proposed that a retirement of 78,000 acres or about 0.5 percent of the total cropland take place in 1949. The long-time objective provides for withdrawing about one-half million of the least productive acres from crop production.

TABLE 1 - Ohio: Estimated Utilization of Cropland in 1949, With Comparisons

Use of cropland	1947		1948		1949 Suggested		Long-time Objective	
	Acreage	% of total cropland	Acreage	% of total cropland	Acreage	% of total cropland	Acreage	% of total cropland
Column	1	2	3	4	5	6	7	8
	1000 acres	%	1000 acres	%	1000 acres	%	1000 acres	%
Intertilled crops	4569	35	4777	37	4252	33	3703	30
Small grain crops	3170	24	3655	28	3597	28	3004	24
Sod crops	4314	33	4058	31	4450	34	5083	40
Tame hay & seed crops	2614	20	2508	19	2650	20	3035	24
Rotation pasture	1700	13	1550	12	1800	14	2048	16
Idle cropland	1025	8	588	4	701	5	754	6
Total cropland	13078	100	13078	100	13000	100	12544	100

The acreage of intertilled crops suggested for 1949 is 4,585,000 acres. This is approximately one and one quarter million acres below the wartime peak reached in 1944 and a half million acres below 1948. The proposed intertilled acreage for 1949 amounts to 33% of the total cropland area of the state as compared to 43% in 1944 and 37% in 1948.

The suggested downward adjustment in the intertilled acreage as well as in the proportion of the total cropland planted to such crops is a big but much needed step in the direction recommended as a long-time objective for a balanced conservational type of farming. The suggested acreage for 1949 would still be a half million acres above the long-time objective. It is a definite advance toward a system of farming that will eventually rebuild the soils of the state and make for national security and continued farm prosperity.

The relatively high small grain acreage suggested for 1949 was deemed desirable first to obtain the needed grass seedings for expanding the sod crop acreage and second, to re-establish in these uncertain times a reserve which can more easily be reduced than built up in our hungry world. For this reason an acreage a half million acres above the long-time objective is suggested for 1949.

The suggested sod crop acreage is nearly one-half million acres above the wartime low which occured in 1944. In 1944 and 1945 sod crops comprised less than 30 percent of the total cropland. During these years we were depleting the productivity of our cropland in excess of 0.7 percent per year. Farmers realizing the impossibility of continuing such a program for long stepped up their sod crop acreage. In 1946, 32 percent and in 1947, 33 percent of the cropland was in sod. The suggested 1949 acreage is 37 percent and the long-time objective is 40 percent of the total cropland. The short feed crop production in 1947 and the insuing high prices resulted in larger planting of intertilled crops and a corresponding reduction in sod crops in 1948. Nevertheless the 1948 sod crop acreage remained well above the wartime low.

During the past few years the acreage of idle cropland (including crop failure) has been at the low level of about 5 percent of the total cropland area. The stimulus of the war and virtually no abandonment or crop failure have been the prime factors in holding the idle acreage near the level suggested as a long-time objective. However, as a result of the adverse weather condition the acreage of idle cropland increased sharply in 1947. With the continuation of favorable prices and good weather in 1948 the idle acreage dropped below the wartime low mark. Some increase in idle cropland in 1949 may be expected.

Effects on Soil Productivity

The long-time trend in the productivity of the average soils of Ohio has thus far, but not inevitably, been downward. However, the yields of crops have been sustained and even raised by the interjection of nunerous new cultural techniques and more efficient varieties. Had not the productivity of the soils been declining, these new techniques and plant strains would have produced far greater increases in yields.

Ohio agronomists have been calculating, by means of a system of productivity balances, the percentage changes that occur annually in the productive capacities of the soils of the state under specific cropping and management systems.1/ By applying this method of analysis to the entire rotated cropland acreage the productivity balances, shown in Table 2, are obtained.

Slight progress was made during the thirties toward a better balance (lesser negative factor) but this was abruptly reversed by the stimulus to produce in order to meet wartime requirements for food. This acceleration in the rate of soil deterioration has been a source of concern to farmers and many have considered ways and means of easing the drain on their land. This concern began to be reflected in 1945. In that year the soybean acreage seeded was cut 223,000 acres below the peak reached in 1944. At the same time the small grain acreage in which meadow seedings are made (the first step toward soil rebuilding) was increased 350,000 over 1944. Sod acreage was also increased. In 1946 farmers again cut their soybean acreage by approximately one-fourth million and further increased the area in sod crops by a similar amount. These adjustments were sufficient to produce an appreciable reduction in the rate at which the state's soils are being depleted. In addition to these shifts in the state's cropping pattern toward less depletion there has been a rapid expansion in the instillation of erosion and water control measures which are also decreasing the rate, (see Table 2).

The sharp curtailment in the rate of soil depletion which took place in 1947 was influenced appreciably by the adverse spring season which restricted the acreage of intertilled crops below what it would otherwise have been. With the increased intertilled and small grain acreage in 1948 an increase in the rate of soil deterioration has again taken place. The crop pattern suggested by the committee for 1949 together with the further expansion in erosion and water control measures that are expected to be placed in operation by farmers would lower the rate of depletion to -.42.

TABLE 2 - Ohio: Soil Productivity Balance*

Year	Productivity balance factor	What's happening to productivity of Ohio soils
	Percent	
1929	-.65	depleting
1935	-.61	depleting
1939	-.51	depleting
1942	-.61	depleting
1943	-.64	depleting
1944	-.76	depleting
1945	-.70	depleting
1946	-.63	depleting
1947	-.52	depleting
1948 Expected	-.55	depleting
1949 Suggested	-.42	depleting
Long-time objective	Positive balance	maintaining

*Data prepared by J. A. Slipher, Extension Conservationist, O.S.U.

1/ "Our Heritage - The Soil," Ohio Agricultural Extension Service, Bul.175.

The long-time objective is a crop and livestock pattern for the state that will maintain the productivity of the land. In the interests of national and individual farm security, progress toward this goal should be made as rapidly as post-war conditions permit. Farm management studies in Ohio show that farming is more profitable where the productivity of the land is maintained than where it is exploited.1/ The farming pattern of the state will still require major adjustments before the long-time objective--a positive productivity balance, is reached.

The suggested cropping pattern for 1949 with its relatively high acreages of wheat and oats is a temporary situation. The use of greater proportions of these crops is due to the fact that they serve as companion crops for seedings of the clovers and alfalfa which is the preliminary step. It is prerequisite to a further expansion of the acreage of sod crops--the basis for a soil maintaining and rebuilding program. In addition, the continuation and intensification in 1949 of the use of lime, fertilizer, and manure will do much to facilitate the attainment of the long-time objective. Even under the cropping pattern suggested for 1949, soil depletion will continue to be a major agricultural problem in Ohio.

Acreage Adjustments - Major Crops

Two major adjustments are proposed in the state's cropping pattern for 1949. It is suggested that the corn acreage be reduced approximately a half million acres below the 1948 figure and second, that sod crops be increased by a corresponding amount, (see Form 1, pages 8 and 9).

Corn: The very large crop in prospect both in the state and nation together with the low livestock population is expected to result in a very large carryover of feed grain at the end of the 1948-49 feed year (see Form 3, page 17). With the average yields (see Form 2, page 11) 3,200,000 acres suggested for 1949 together with the expected carryover of feed grains and the 1949 oats and other feed grain will provide a tonnage for a livestock program greatly in excess of that of the 1947-48 feed year (see Form 3, page 17). A reduction in corn acreage of this magnitude is highly desirable in view of the current condition of the soil on the large majority of the farm. Furthermore, it can be made without appreciable curtailment in livestock operation. In all probability, weather permitting, the acreage planted will be considerably higher than that suggested but definitely below that of 1948.

Soybeans: A rapid decline in the acreage of soybeans occured following the record acreage of about 1,500,000 in 1944. The 1945 acreage dropped about 250,000 acres below the 1944 peak. This reduction was followed by another decline of 290,000 acres in 1946. In 1947 approximately the same acreage of soybeans was planted as in 1946. The acreage in 1948 was 60,000 acres below the 1947 plantings. For 1949 a soybean acreage of 850,000 is suggested. This is still considerably above that recommended as a long-time objective.

1/ "The Relationship Between Soil Maintenance and Profitable Farming," Ohio Agricultural Experiment Station, Bul.604.

Wheat: The acreage of wheat has been expanding during the past several years. An exception to this was 1946 due to unfavorable weather for maturing and harvesting corn and soybeans. However, the additional acreage that farmers had intended to seed to wheat were planted to oats in the spring of 1946. Good yields, favorable sowing conditions and the strong demand situation have been important causes for this increased acreage.

A wheat acreage of 2,300,000 is suggested for 1949 (seeding in fall of 1948). This is considerably above the long-time objective but is considered justifiable in the short run when all factors are taken into account. It provides ground cover over winter, a nurse crop for grass and legume seeding. It also appears desirable in view of the continued world uncertainty, the ease with which wheat can be stored and if need be, disposed of in our chronically under nourished world.

Oats: Provided Ohio farmers are able to seed the 2,300,000 acres of wheat suggested for this fall, then about 1,300,000 acres of oats should be seeded in the spring of 1949. This is approximately the same as that seeded in 1948. If a smaller wheat acreage is seeded this fall, then a greater acreage of oats should be planted in 1949. The oat acreage suggested for 1949 is considerably above the long-time objective.

It is highly important that the combined acreage of oats and wheat be held at a high level for the next few years in order to provide nurse crop acreages essential in establishing greater acreages of the sod crops. In addition, the improved oat yields, the increased acreage of corn picked, and the improved returns in recent years have made this crop more attractive to the farmers of Ohio.

Hay and pasture crops: Soil deterioration has been taking place at an accelerated rate since the start of the war, the harmful effects of which are becoming more evident each year. A definite effort should be put forth to expand the sod crop acreage. The increases suggested for 1949 in hay, seed crop and rotation pasture acreage are in keeping with this urgent need.

A substantial expansion of 300,000 acres, in the rotation pasture acreage is suggested for 1949, bringing the total up to 1,800,000 acres as compared to the long-time objective of almost 2,048,000 acres. This increased acreage of rotation pasture can be obtained by 1949 by holding over a greater acreage of old seedings and to a more limited extent the expansion of new seedings.

Hay and cover crop seed supplies are likely to continue short relative to requirements in 1949 and 1950. The harvesting of the maximum volume of seed should be encouraged in 1949. A high level of seed production, particularly the legumes, should be maintained until the long-time objective sod crop acreages are obtained.

Potatoes: The downward trend in the acreage of potatoes has continued throughout the war period to the current crop year, declining from the 1937-41 average of 110,000 acres to 47,000 acres in 1947.

Form 1

Ohio: Suggested use of farmland in 1949 with comparisons

Use of farm land	:Acre-: age	:Reported: for 1947	:Expected: in 1948	:Probable: in 1949	:Suggested: for 1949	:Long time objective
Column	1	2	3	4	5	6
		1000 acres	1000 acres	1000 acres	1000 acres	1000 acres
Corn, all	P	3,414	3,687	3,400	3,200	2,704
Soybeans, grown alone	P	1,000	940	1,000	850	697
Soybeans for beans	H	950	908	950	800	675
Soybeans for hay	H	42	30	40	40	22
Tobacco, all	H	19	20	20	22	26
Burley	H	13	14	14	15	17
Other domestic	H	6	6	6	7	9
Sugar beets	P	26	15	25	45	45
Irish potatoes	P	43	43	55	65	126
Popcorn	P	4	12	5	5	
Truck crops for processing, total	P	63	59	64	64	85
Green peas	P	2.7	5	5	5	
Tomatoes	P	32.6	30	32	32	
Sweet corn	P	23.1	19.5	21	21	
Lima beans	P	1	.9	1	1	
Cabbage (kraut)	P	.7	1	2	2	
Cucumbers for pickles	P	2.9	2.6	3	3	
Truck crops for fresh market	H	10	11	11	11	20
Cabbage	H	2	2.5	2	2	
Cantaloups	H	1.2	1.2	1.5	1.5	
Carrots	H	1.4	1.6	1.6	1.6	
Celery	H	.9	.9	1	1	
Onions	H	.7	.8	.9	.9	
Tomatoes	H	3.4	3.7	4.0	4.0	
Adjustment for multiple use		10	10	10	10	
Total cropland used for intertilled crops 1/		4,569	4,777	4,570	4,252	3,703
Oats	P	888	1,243	1,300	1,300	1,074
Barley	P	16	19	20	20	36
Winter wheat	P	2,212	2,389	2,300	2,300	1,924
Oats for grain	H	733	1,202	1,260	1,260	1,050
Barley for grain	H	15	15	16	16	36
Grains cut green for hay	H	28	20	25	25	24
Rye for grain	H	30	22	25	25	49
Buckwheat	P	44	17	17	17	17
Adjustment for multiple use		20	35	65	65	96
Total cropland used for close-growing crops 1/		3,170	3,655	3,597	3,597	3,004

Form 1 (continued)

Ohio: Suggested use of farmland in 1949 with comparisons

Use of farm land	Acreage	Reported for 1947	Expected in 1948	Probable in 1949	Suggested for 1949	Long time objective
	1	2	3	4	5	6
		1000 acres	1000 acres	1000 acres	1000 acres	1000 acres
Hay, all tame--except soybean, cowpea, peanut and small grain hay	H	2,500	2,398	2,485	2,535	2,910
Hay, all tame	H	2,570	2,448	2,550	2,600	2,956
Seeds, hay and cover crop, all	H	215	310	360	415	435
Alfalfa	H	5	5	5	10	60
Red clover	H	96	200	250	300	250
Sweet clover	H	21	15	15	15	25
Alsike	H	20	25	25	30	40
Timothy	H	73	65	65	60	60
Rotation (cropland) pasture		1,700	1,550	1,650	1,800	2,048
Adjustment for multiple use		101	200	250	300	310
Total cropland used for sod crops 1/		4,314	4,058	4,245	4,450	5,083
Idle cropland		1,025	588	638	701	754
Total cropland 1/		13,078	13,078	13,050	13,000	12,544
Orchards, vineyards, and small fruits (adjusted)		10	10	10	10	
Orchards, vineyards, and small fruits, total		140	140	140	140	
Other plowable pasture		2,300	2,300	2,300	2,300	2,300
Open nonplowable pasture		2,500	2,500	2,500	2,500	2,500
Woodland pasture		1,400	1,400	1,300	1,000	350
Woodland unpastured and other land in farms		2,500	2,500	2,600	2,850	
Total land in farms		21,928	21,928	21,900	21,800	21,400
Winter cover crops, legumes	P	10	10	10	15	
Other pasture in farms	U	3,300	3,300	3,300	3,300	
New seedings after harvested nurse crops	U	1,650	1,650	1,650	1,550	
Hay and seed-crop aftermath	U	1,000	1,000	1,000	1,200	
Winter grains grazed(pre-harvest)	U	50	50	50	50	
Stalk and stubble fields	U	600	600	600	500	

1/ Total acres used for crops is less than the sum of the acreages of individual crops to the extent that two or more crops were, or will be, planted on or harvested from the same land during the year.

P = Planted acres
H = Harvested acres
U = Used

Labor shortages, disease and other risk factors have caused the potato grower considerable difficulty. Furthermore, many farmers who formerly grew a few potatoes for their own use have discontinued this practice in recent years. The committee feels that this downward trend should be stopped and reversed since Ohio is now a deficit potato producing area. The acreage of potatoes suggested for 1949 is 65,000 as compared to the long-time objective which provides for 126,000 acres.

Truck crops: Labor shortages and the profitableness of alternatives have kept the wartime acreages of the truck crops for processing only moderately higher than the 1933-42 average. Truck crop acreage for the fresh market has in recent years fallen substantially below the ten-year prewar average. Sixty-four thousand acres of the truck crops for processing are suggested for 1949, an increase of 5,000 acres from 1948 but 21,000 acres below the long-time objective.

Probable Yields

The probable yields in 1949 were set at levels approximating rather closely the average yields obtained during the 1937-41 period except in the case of corn (see Form 2). The 1949 probable corn yield was set at 48 bushels per acre as compared to the 1937-41 average of 45 bushels. This upward adjustment was based on a more widespread use of hybrid corn particularly the newer higher yielding varieties. Also, the use of more fertilizer on corn. The appraisal of weather as a factor in the high yields of the past seven or eight years has been a difficult task. No doubt a return of somewhat "more normal" weather would result in somewhat lower yields than have been harvested in recent years.

Soybean yields for 1949 were estimated at 20 bushels per acre as compared to a 19 bushel yield during the 1937-41 period. New higher yielding varieties along with greater farmer experience with this relatively "new" crop should raise the average yield at least one bushel per acre.

Tame hay yields in recent years have consistently exceeded the 1937-41 average of 1.38 tons per acre. A greater proportion of the tame hay acreage is now in clover or clover mixtures than was the case during the 1937-41 period. Also, the application of greater quantities of lime and fertilizer to the rotation during the past few years has had a favorable effect on hay yields. The probable yield of tame hay in 1949 has been estimated at 1.45 tons per acre, compared to the long-time objective of 1.9 tons.

Total Production

If the estimated acreages and yields materialize as indicated by the July and August crop reports then the total production in 1948 of corn, small grain (including entire wheat crop) and soybeans will be one-third larger than the 1935-44 average and the largest on record for the state (see Table 3). Probable production in 1949, based on suggested acreages (Form 1) and yields (Form 2), would be about 8 percent above the 1935-44 average and substantially above the 1947 production.

Form 2

Ohio: Probable crop yields per acre in 1949 with comparisons

Crop	Acre-age	Unit	Base Period	Yields per acre: Average for base period	Yields per acre: Probable in 1949	Yields per acre: Long time objective
	1	2	3	4	5	6
				Units	Units	Units
Corn, all	P	Bu.	1937-41	44.9	48	54
Soybeans for beans	H	Bu.	1937-41	19.2	20	22
Burley tobacco	H	Lb.	1937-41	915	1150	1300
Other domestic tobacco	H	Lb.	1937-41	1003	1150	1400
Sugar beets	P	Ton	1937-41	7.5	8	12
Irish potatoes	P	Bu.	1937-41	104.4	125	125
Oats for grain	H	Bu.	1937-41	36.3	42	45
Barley for grain	H	Bu.	1937-41	26.3	26	28
Winter wheat	P	Bu.	1937-41	20.2	22	25
Rye for grain	H	Bu.	1937-41	15.8	16	16
Buckwheat	P	Bu.	1937-41	16.4	16	16
Peas	P	Ton	1937-41	0.6	0.6	0.8
Tomatoes	P	Ton	1937-41	6	6	7
Sweetcorn	P	Ton	1937-41	1.7	1.7	2.3
Cabbage (Krout)	P	Ton	1937-41	7.8	7.8	9.5
Hay, all tame	H	Ton	1937-41	1.38	1.45	1.9
Rotation (cropland) pasture		a.u.m.			2.3	3.5
Open permanent pasture and range in farms		a.u.m.			1.5	2.
Woodland pasture in farms		a.u.m.			0.5	0.8
Other pasture in farms		a.u.m.			0.75	1

H = Harvested

P = Planted

TABLE 3 - Ohio: Suggested 1949 Production of Major Crops, With Comparisons

Crop	1935-44 Average		1947		1948 Indicated		1949 Probable		1949 Suggested 1/	
	Bushels (1000)	Tons (1000)	Bushels (1000)	Tons (1000)	Bushels (1000)	Tons (1000)	Bushels (1000)	Tons (1000)	Bushels (1000)	Tons (1000)
Corn	155,800	4,364.1	138,826	3,888.6	197,478	5,531.5	163,200	4,571.4	153,600	4,302.5
Wheat	41,875	1,257.5	49,028	1,472.3	61,178	1,837.1	50,600	1,519.5	50,600	1,519.5
Oats	41,021	656.3	19,058	304.9	50,484	807.7	52,960	846.7	52,920	846.7
Barley	747	17.9	390	9.3	532	12.7	520	12.5	520	12.5
Rye	1,075	30.1	510	14.3	396	11.1	400	11.2	400	11.2
Buckwheat	283 2/	7.1	651	16.3	272	6.8	272	6.8	272	6.8
Soybeans	9,889 2/	297.0	17,575	527.7	18,160	545.3	19,000	570.5	16,000	480.4
TOTAL	----	6,630.0	----	6,233.4	----	8,752.2	----	7,538.6	----	7,179.6
% of 1935-44 average	----	100.0	----	94.0	----	132.0	----	113.7	----	108.3
Tame hay	----	3,410.0	----	3,602.0	----	3,427.0	----	3,697.0	----	3,770.0
% of 1935-44 average	----	100.0	----	105.6	----	100.5	----	108.4	----	110.5

1/ Based on suggested acreages, Form 1, and normal yields, Form 2.

2/ 1934-44 average.

IV. LIVESTOCK NUMBERS AND PRODUCTION IN 1949-50

Estimated Livestock Numbers and Production

Horses: The horse population in the state continues to decline. The number of colts being raised are insufficient to maintain even one-half of the present number of horses. By January 1, 1949, the number will be well below 200,000 head (Form 4). This continued downward trend has made and will continue for a few years more to make available feed and pasture for other types of livestock.

Milk cows: On January 1, 1945, there were 1,172,000 milk cows on farms in the state. This was the largest number to be recorded to date. Since then the number has dropped each year and on January 1, 1948, stood at 1,071,000 head. In view of the continued heavy demand for dairy products and the abundant feed supplies for 1948-49 an attempt should be made to maintain present cow numbers and to increase them somewhat. However, the likelihood of any appreciable increase during the remainder of 1948 and the early part of 1949 is highly improbable. The current lack of replacement stock makes any sizeable increase impossible. Heifer calves saved annually for replacement dropped from 287,000 in 1942 to 252,000 in 1945. In 1946 slightly more were saved than in the previous year. Again in 1947 the number of heifer calves saved dropped. On January 1, 1948, there were 28,000 more one to two year olds on Ohio farm than a year earlier as a result of the increased number of heifer calves saved in 1946.

Beef cattle: Abundant roughage and pasture on many farms together with high prices of both feeder and finished cattle should be sufficient inducement to encourage farmers to maintain their present breeding herds.

The prospects for a large corn crop and the continued heavy demand for finished cattle would normally result in a large number of cattle being placed on feed. However, the high price of feeders and the lack of confidence in finished cattle prices in 1949 will hold numbers down to or below those put on feed during the 1947-48 feed year.

Poultry and eggs: The number of hens and pullets on farms is expected to be slightly smaller January 1, 1949, than January 1, 1948. The narrow egg feed ratio and the tight feed situation throughout the hatching season combined to hold down the number of chickens raised. This is expected to be offset by farmers holding over a larger number of old hens with the result that little change in number is in prospect. A 1949 production of 31,000,000 chickens is suggested in view of the liberal feed supplies for 1948-49 and the prospects for continued high meat prices. This is approximately 25% above the number of chickens raised in 1948 but far below the 1943 peak of 38 million. The suggested production for turkeys in 1949 is approximately 30 percent above the low levels of 1948, and commercial broilers, 12 percent above.

Sheep: Sheep numbers have been on the down grade since 1943. In the opinion of the Production Adjustment Committee the downward adjustment has been carried too far on many farms from the standpoint of sound economy and some increase in number in 1949 is desirable particularly in the medium wool breeds. The long-time objective established for the Post War Crop & Livestock Pattern for Ohio is two million head. There is some evidence of renewed interest in sheep with the result that numbers are not expected to drop below the current level and may actually register a slight increase over January 1, 1948.

In view of the feed grain supply it seems desirable that some increase should occur in the number of lambs put on feed in 1949. However, in all probability little change from 1948 will result, regardless of the feed situation, due to the small feeder lamb crop and high feeder prices.

Hogs: A substantial increase in the number of sows bred for spring and fall farrowing in 1949 is in prospect as a result of good prices and the large 1948 corn crop. The short 1947 corn crop curtailed the combined spring and fall farrowing in 1948 to the lowest number since 1938. Ohio farmers tend to vary their hog numbers and market weights more than they do other types of livestock in their effort to keep their livestock program in line with their feed supplies. Adjustment downward in farrowings following short corn crops in the United States is generally more quickly made than increases following good crops.

The adjustment committee suggests that the breeding of sows and gilts in the states this fall for farrowing in the spring of 1949 be stepped up to 425,000, an increase of about 12 percent over the 1948 spring farrowing. The breeding of 375,000 in the spring of 1949 for fall farrowing are suggested or 13 percent more than was bred for farrowing in the fall of 1948 (see Table 5, page 20).

The 1948 corn crop in prospect will provide a corn supply ample to feed out the pigs from somewhat larger farrowing than those suggested for 1949 by the committee. However, it is their belief that a sizeable amount of the 1948 crop should be carried over thus enabling some reduction in 1949 corn and acreage in the interest of soil conservation and rebuilding. A 15 percent increase in hog numbers over 1948 for the country as a whole and the feeding of all meat animals to somewhat heavier weights permitted by the large feed supplies will make possible a per capita meat consumption in 1949-50 about one-fourth larger than the 1935-39 average and equal to or above the all time peak of 155 pounds consumed in 1947. The current high price and scarcity of gilts together with some uncertainty in the minds of many farmers regarding the stability of prices is expected to hold this fall's breeding for 1949 spring farrowing to something below that suggested.

TABLE 4 - Ohio: Corn Production and the Number of Sows Farrowed by Years from 1940 to Date

Period or year	Production 1000 Bu.	Sows Farrowed (1000 head)		
		Spring	Fall	Total
1935-44 average	155,800	401	350	751
1940	122,360	450	367	817
1941	160,974	392	360	752
1942	185,752	459	432	891
1943	174,042	551	488	1,039
1944	142,956	474	337	811
1945	176,913	360	364	724
1946	178,409	400	335	735
1947	138,826	428	342	770
1948 indicated	197,478	381	332	713
1949 probable	163,200	400	375	775
1949 suggested	153,600	425	375	800

Livestock Feed Requirements

With more liberal feed supplies and favorable livestock and livestock product prices somewhat more liberal feeding practices are in prospect. Grain and hay consumption per head was raised for dairy cows and replacement stock and feeder cattle. Grain consumption was raised slightly per hundred weight of pork in anticipation of lower feeding efficiency due to feeding to heavier weights. In the case of poultry, both grain and supplement were raised because of too low an estimate in earlier reports. On the basis of these revised feeding rates and livestock numbers and production (Form 3) 4,346,300 tons of grain were required in 1947-48. The suggested livestock program for the 1948-49 feed year will require about 4.8 million tons. This is about 10 percent above that required in 1947-48. In addition to the grain 3,175,000 tons of hay and 12,313,000 animal unit months of pasture will be required in 1948-49. This is approximately the same as in the preceding year.

Availability of Feed

On the basis of the August 1, 1948, acreage and production estimate, feed grain production plus carryover and wheat fed on farms will make available for feeding in 1948-49 a total of 6,198,400 tons. This is 1,409,500 tons more than was available the previous year (see Form 3) and the largest since 1942-43 when approximately 6.5 million tons were available.

The 6,198,400 tons of feed grains estimated to be available for feeding in 1948-49 include 360,000 tons or 12,000,000 bushels of wheat that will be fed on farms where grown. The somewhat higher wheat feeding than

average was anticipated by the committee as a result of the short corn supplies on many farms and the nearly equal corn and wheat prices prevailing between the 1948 wheat and corn harvest.

The suggested 1949 cropping pattern for Ohio (see Form 1) will provide, if normal yields are attained, 5,708,700 tons of feed grain for use October 1, 1949-50 or 8 percent less than the estimated volume of feed available for the feed year beginning October 1, 1948.

Feed Balance Sheet

If the anticipated crop acreages and production materializes; livestock numbers are as suggested and feeding rates are as indicated, there will be a surplus of 1.1 million tons of feed grains in the 1948-49 feed year. In 1947-48 the livestock requirements were brought into approximate balance with the short 1947-48 supply. With somewhat near normal weather both hay and pasture will be ample to meet needs in 1948-49 and 1949-50.

Form 3

Ohio: Supply of feeds available for feeding livestock and for other purposes, with comparisons
1949-50

Item	Year beginning October 1			
	1947-48 reported	1948-49 expected	1949-50 probable	1949-50 suggested
	Tons 1000	Tons 1000	Tons 1000	Tons 1000
Feed grains				
Corn, all				
Carry-over beginning of year	443.9	224.1	560.2	700.2
Production (inc. gr. in silage and fodder)	3888.6	5531.5	4571.4	4302.5
Total supply	4332.5	5755.6	5131.6	5002.7
Seed	16.8	16.8	16.8	16.8
Carry-over end of year	224.1	560.2	336.1	336.1
Net supply	4091.6	5178.6	4778.7	4649.8
Oats				
Carry-over beginning of year	179.2	39.6	160.0	160.0
Production	304.9	807.7	846.7	846.7
Total supply	484.1	847.3	1006.7	1006.7
Seed	48.0	48.0	48.0	48.0
Carry-over end of year	39.6	160.0	160.0	160.0
Net supply	396.5	639.3	798.7	798.7
Barley				
Carry-over beginning of year	1.2	1.9	1.9	1.9
Production	9.3	12.7	12.5	12.5
Total supply	10.5	14.6	14.4	14.4
Seed	1.0	1.0	1.0	1.0
Carry-over end of year	1.9	1.9	1.9	1.9
Net supply	7.6	11.7	11.5	11.5
Other grains				
Wheat fed on farms where grown	279.7	360.3	240.2	240.2
Rye fed on farms where grown	4.4	4.2	4.2	4.2
Buckwheat fed on farms where grown	9.1	4.3	4.3	4.3
Total net supply of feed grains	4788.9	6198.4	5837.6	5708.7
Total needed for food and industrial use	250.0	300.0		300.0
Total available for feeding livestock and for outshipments	4538.9	5898.4		5408.7
Total needed for feeding livestock	4346.3	4795.6		4740.2
Total available for outshipments	192.6	1102.8		668.5
Total inshipments needed				

Form 3 (continued)

Ohio: Supply of feeds available for feeding livestock and for other purposes, with comparisons
1949-50

Item	Year beginning October 1			
	1947-48 reported	1948-49 expected	1949-50 probable	1949-50 suggested
	Tons 1000	Tons 1000	Tons 1000	Tons 1000
Other farm-produced concentrates				
Soybeans fed	8.3	8.0	8.0	8.0
Skim milk fed (dry basis)	10	10	10	10
Hay				
Carry-over beginning of year	623	504	500	500
Tame hay production	3602	3427	3697	3770
Total supply	4225	3931	4197	4270
Carry-over end of year	504	500		600
Net supply	3721	3431		3670
Total needed for feeding livestock	3208	3175		3263
Available for other purposes	513	256		407
Inshipments needed				
Other roughages produced and fed				
Corn silage	1150	1100	1100	1100
Corn stover	1200	1200	1200	1200
Small grain straw	150	150	150	150
Grazing capacity of pastures and ranges (in animal unit months)		Grazing season		
	1948 expected a.u.m.	1949 probable a.u.m.	1949 suggested a.u.m.	1950 suggested a.u.m.
Rotation (cropland) pasture	3565	3795	4140	4140
Open permanent pasture and range in farms	7680	7200	7680	7680
Woodland pasture in farms	700	650	600	600
Other pasture in farms	3300	3300	3300	3300
Total carrying capacity	15,245	14,945	15,720	15,720
Total requirements for livestock	12,258		12,313	12,605

Form 4

Ohio: Suggested production of livestock and livestock products 1949, with comparisons

Items of livestock and livestock products	Unit	Reported for Jan. 1, 1947	Reported for Jan. 1, 1948	Expected Jan. 1, 1949	Probable Jan. 1, 1950	Suggested Jan. 1, 1950
Column	1	2	3	4	5	6
		1000 units	1000 units	1000 units	1000 units	1000 units
On farms January 1						
Horses, mules and colts	No.	224	193	175	170	170
Cattle and calves, all	No.	2,150	2,150	2,150	2,160	2,220
Cows kept for milk, 2 years /	No.	1,082	1,071	1,070	1,080	1,100
Other cows, 2 years /	No.	86	92	90	90	95
Sheep and lambs, all	No.	1,429	1,320	1,350	1,400	1,425
Ewes, 1 year /	No.	872	828	850	875	900
Hens and pullets	No.	18,456	18,294	18,000	19,500	19,000
		Reported for 1947	Expected in 1948	Probable in 1949	Suggested in 1949	xxxxx
During year						
Sows farrowed, spring 1/	No.	428	381	400	425	xxx
Sows farrowed, fall 2/	No.	342	332	375	375	xxx
Chickens raised 3/	No.	29,576	25,000	31,000	31,000	xxx
Commercial broiler production	No.	3,257	4,000	4,500	4,500	xxx
Turkeys raised	No.	1,213	950	1,250	1,250	xxx
Milk cows, ave. during the year	No.	1,042	1,032	1,031	1,040	xxx
Milk produced	1000 Lbs.	5,325	5,315	5,315	5,356	xxx
Wool shorn	Lbs.	9,396	8,700	8,900	9,200	xxx
Eggs produced	Doz.	211,580	209,800	206,400	223,600	xxx
Cattle put on feed 4/	No.	125	120	130	135	xxx
Ave. gain on feeder cattle 5/	Lbs.	220	265	265	265	xxx
Sheep and lambs put on feed 4/	No.	300	280	280	300	xxx
Ave. gain on feeder sheep and lambs 5/	Lbs.	23	23	23	23	xxx
Net production of hogs 4/ cwt.	Lbs.	9,729	11,033		10,621	xxx

1/ December 1 (of previous year) to June 1.

2/ June 1 to December 1.

3/ Excluding commercial broilers.

4/ Twelve-month period beginning on October 1.

5/ Weight in pounds instead of 1,000 pounds.

TABLE 5: Ohio - Estimated Net Weight Production of Hogs

Year and pig crop	Sows farrowing	Pigs per litter	Pigs saved	Death loss		Hogs raised	Average market weight	Total weight produced	Percentage of weight put on during feed year	Net production
	1000 Head	Head	1000 Head	Percent	1000 Head	1000 Head	Pounds	1000 Pounds	Percent	1000 Pounds
1947-48										
Spring 1947	428	6.38	2,731	11.3	309	2,422	238	576,436	40	230,574
Fall 1947	342	6.94	2,302	11.3	260	2,042	228	465,576	90	419,018
Spring 1948	381	6.87	2,617	10.5	275	2,342	235	550,370	50	275,185
Fall 1948	332	6.75	2,241	10.5	235	2,006	240	481,440	10	48,144
Total	1,483		9,891		1,079	8,812		2,073,822		972,921
1948-49										
Spring 1948	381	6.87	2,617	10.5	275	2,342	235	550,370	50	275,185
Fall 1948	332	6.75	2,241	10.5	235	2,006	240	481,440	90	433,296
Spring 1949	425	6.55	2,784	10.5	292	2,492	230	573,160	60	343,896
Fall 1949	375	6.75	2,531	10.5	266	2,265	225	509,625	10	50,962
Total	1,513		10,173		1,068	9,105		2,114,595		1,103,339
1949-50										
Spring 1949	425	6.55	2,784	10.5	292	2,492	230	573,160	40	229,264
Fall 1949	375	6.75	2,531	10.5	266	2,265	225	509,625	90	458,662
Spring 1950	420	6.55	2,751	10.5	289	2,462	220	541,640	60	324,984
Fall 1950	370	6.75	2,497	10.5	262	2,235	220	491,700	10	49,170
Total	1,590		10,563		1,109	9,454		2,116,125		1,062,080

Form 5a

Ohio: Estimated quantities of feeds needed for feeding livestock for the 12-month period beginning October 1, 1947

Class of livestock	Feed per animal, bird or cwt.					Total livestock and feed					
	Concentrates				Tame and wild hay	Units of livestock	Concentrates			Hay	Pasture and grazing (1000)
	Grains 1/	Seeds and skim milk	Commercial by-products	Total			Grains 1/	Seeds and skim milk	Commercial by-products		
Column	1	2	3	4	5	6	7	8	9	10	11
	Pounds	Pounds	Pounds	Pounds	Pounds	1000 Units	1000 Tons	1000 Tons	1000 Tons	1000 Tons	1000 Tons
1. Horses, mules and colts	1300	--	5	1305	3000	193	125.4	--	0.5	289.5	965
2. Milk cows	1580	10	310	1900	3400	1071	846.1	5.3	166.0	1820.7	6426
3. Beef cows	190	--	10	200	2000	92	8.7	--	0.5	92.0	644
4. Feeder cattle	1500	10	150	1660	1200	125	93.7	0.6	9.4	75.0	125
5. Other cattle and calves	600	10	90	700	1500	877	263.1	4.4	39.5	657.7	1754
6. Ewes, 1 year	75	--	3	78	450	828	31.0	--	1.2	186.3	828
7. Feeder sheep and lambs	105	--	20	125	200	300	15.7	--	3.0	30.0	30
8. Other sheep and lambs	40	--	--	40	375	225	4.5	--	--	42.2	225
9. Hogs, cwt. net production	420	2	38	460	---	9729	2043.3	9.7	184.9	---	1143
10. Hens and pullets	60	--	25	85	xxx	18294	548.8	--	228.7	---	55
11. Chickens raised	25	0.1	6	31	xxx	25000	312.5	1.2	75.0	---	25
12. Comm. broilers produced	7	--	6	13	xxx	4000	14.0	--	12.0	---	---
13. Turkeys raised	80	--	10	90	xxx	950	38.0	--	4.8	---	38
14. Other livestock	xxx	xxx	xxx	xxx	xxx	xxx	1.5	--	0.3	15.0	---
Total	xxx	xxx	xxx	xxx	xxx	xxx	4346.3	21.2	725.8	3208.4	12258

1/ Includes corn, oats, barley, rye, and wheat, fed from any source including harvested grain, corn silage, corn fodder, unthreshed grain, or commercial mixed feeds.

Form 5b

Ohio: Estimated quantities of feeds needed for feeding livestock for the 12-month period beginning October 1, 1948

Class of livestock	Feed per animal, bird or cwt.					Total livestock and feed					
	Concentrates						Concentrates				
	Grains 1/	Seeds and skim milk	Commercial by-products	Total	Tame and wild hay	Units of livestock	Grains 1/	Seeds and skim milk	Commercial by-products	Hay	Pasture and grazing (1000)
Column	1	2	3	4	5	6	7	8	9	10	11
	Pounds	Pounds	Pounds	Pounds	Pounds	1000 Units	1000 Tons	1000 Tons	1000 Tons	1000 Tons	A.U. Months
1. Horses, mules and colts	1300	--	5	1305	3000	175	113.7	--	0.4	262.5	875
2. Milk cows	1665	10	325	2000	3400	1070	890.7	5.3	173.8	1819.0	6420
3. Beef cows	190	--	10	200	2000	90	8.5	--	0.5	90.0	630
4. Feeder cattle	1825	10	165	2000	1200	120	109.5	0.6	9.9	72.0	120
5. Other cattle and calves	650	10	90	750	1500	870	282.7	4.3	39.1	652.5	1740
6. Ewes, 1 year +	75	--	3	78	450	850	31.8	--	1.2	191.2	850
7. Feeder sheep and lambs	105	--	20	125	200	280	14.7	--	2.8	28.0	28
8. Other sheep and lambs	40	--	--	40	375	240	4.8	--	--	45.0	240
9. Hogs, cwt. net production	425	2	38	465	---	11033	2344.5	11.0	209.6	---	1275
10. Hens and pullets	60	--	25	85	xxx	18000	540.0	--	225.0	---	54
11. Chickens raised	25	0.1	6	31	xxx	31000	387.5	1.5	93.0	---	31
12. Comm. broilers produced	7	--	6	13	xxx	4500	15.7	--	13.5	---	--
13. Turkeys raised	80	--	10	90	xxx	1250	50.0	--	6.2	---	50
14. Other livestock	xxx	xxx	xxx	xxx	xxx	xxx	1.5	--	0.3	15.0	--
Total	xxx	xxx	xxx	xxx	xxx	xxx	4795.6	22.7	775.3	3175.2	12313

1/ Includes corn, oats, barley, rye, and wheat, fed from any source including harvested grain, corn silage, corn fodder, unthreshed grain, or commercial mixed feeds.

Form 5c

Ohio: Estimated quantities of feeds needed for feeding livestock for the 12-month period beginning October 1, 1949

Class of livestock	Feed per animal, bird or cwt.					Total livestock and feed					
	Concentrates				Tame and wild hay	Units of livestock	Concentrates			Hay	Pasture and grazing (1000)
	Grains 1/	Seeds and skim milk	Commercial by-products	Total			Grains 1/	Seeds and skim milk	Commercial by-products		
Column	1	2	3	4	5	6	7	8	9	10	11
	Pounds	Pounds	Pounds	Pounds	Pounds	1000 Units	1000 Tons	1000 Tons	1000 Tons	1000 Tons	A.U. Months
1. Horses, mules and colts	1300	--	5	1305	3000	170	110.0	--	0.4	255.0	850
2. Milk cows	1665	10	325	2000	3400	1100	915.7	5.5	178.7	1870.0	6600
3. Beef cows	190	--	10	200	2000	95	9.0	--	0.5	95.0	665
4. Feeder cattle	1825	10	165	2000	1200	135	123.2	0.7	11.1	81.0	135
5. Other cattle and calves	650	10	90	750	1500	890	289.2	4.4	40.0	667.5	1780
6. Ewes, 1 year	75	--	3	78	450	900	33.7	--	1.3	202.5	900
7. Feeder sheep and lambs	105	--	20	125	200	300	15.7	--	3.0	30.0	30
8. Other sheep and lambs	40	--	--	40	375	250	5.0	--	--	46.8	250
9. Hogs, cwt. net production	420	2	38	460	--	10621	2230.2	10.6	201.7	---	1260
10. Hens and pullets	60	--	25	85	xxx	19000	570.0	--	237.5	---	57
11. Chickens raised	25	0.1	6	31	xxx	30000	375.0	1.5	90.0	---	30
12. Comm. broilers produced	7	--	6	13	xxx	4000	14.0	--	12.0	---	---
13. Turkeys raised	80	--	10	90	xxx	1200	48.0	--	6.0	---	48
14. Other livestock	xxx	xxx	xxx	xxx	xxx	xxx	1.5	--	0.3	15.0	---
Total	xxx	xxx	xxx	xxx	xxx	xxx	4740.2	22.7	782.5	3262.8	12605

1/ Includes corn, oats, barley, rye, and wheat, fed from any source including harvested grain, corn silage, corn fodder, unthreshed grain, or commercial mixed feeds.